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(54) Abstract Title
Combined vacuum cleaner and tool box

(57) A tool box is divided into upper and lower compartments. The upper compartment has a main lid giving access to the main storage compartment and itself is provided with a pair of subsidiary lids 2 which close off compartments for small items such as screws, walls plugs etc.. The lower compartment is a vacuum cleaner, having a detachable dust collection box 21 separated from a suction motor housing by a filter [not shown]. Connections are provided for a hose 11 for suction at 12 and for blowing mode at 8. The electric cable 6 is stored on the side of the box, and a cooling fan for the motor is housed inside the motor housing at the opposite end to the suction impeller for circulating cooling air through vents 9. The main lid has a handle 1 and the dust box is attached to the housing by toggle fastenings 13.

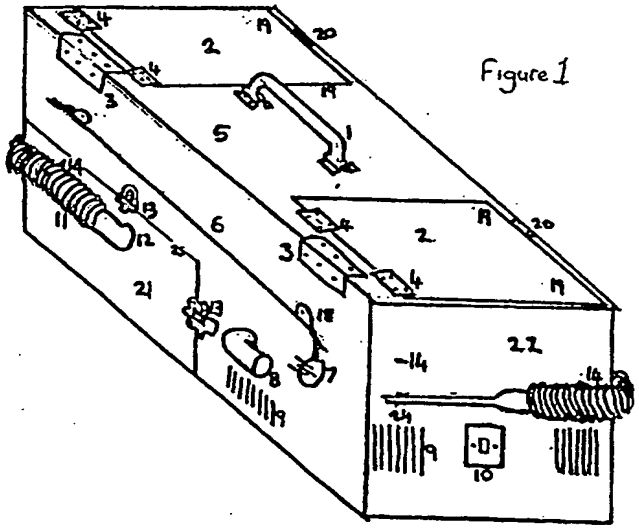


Figure 1

At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

The claims were filed later than the filing date within the period prescribed by Rule 25(1) of the Patents Rules 1995

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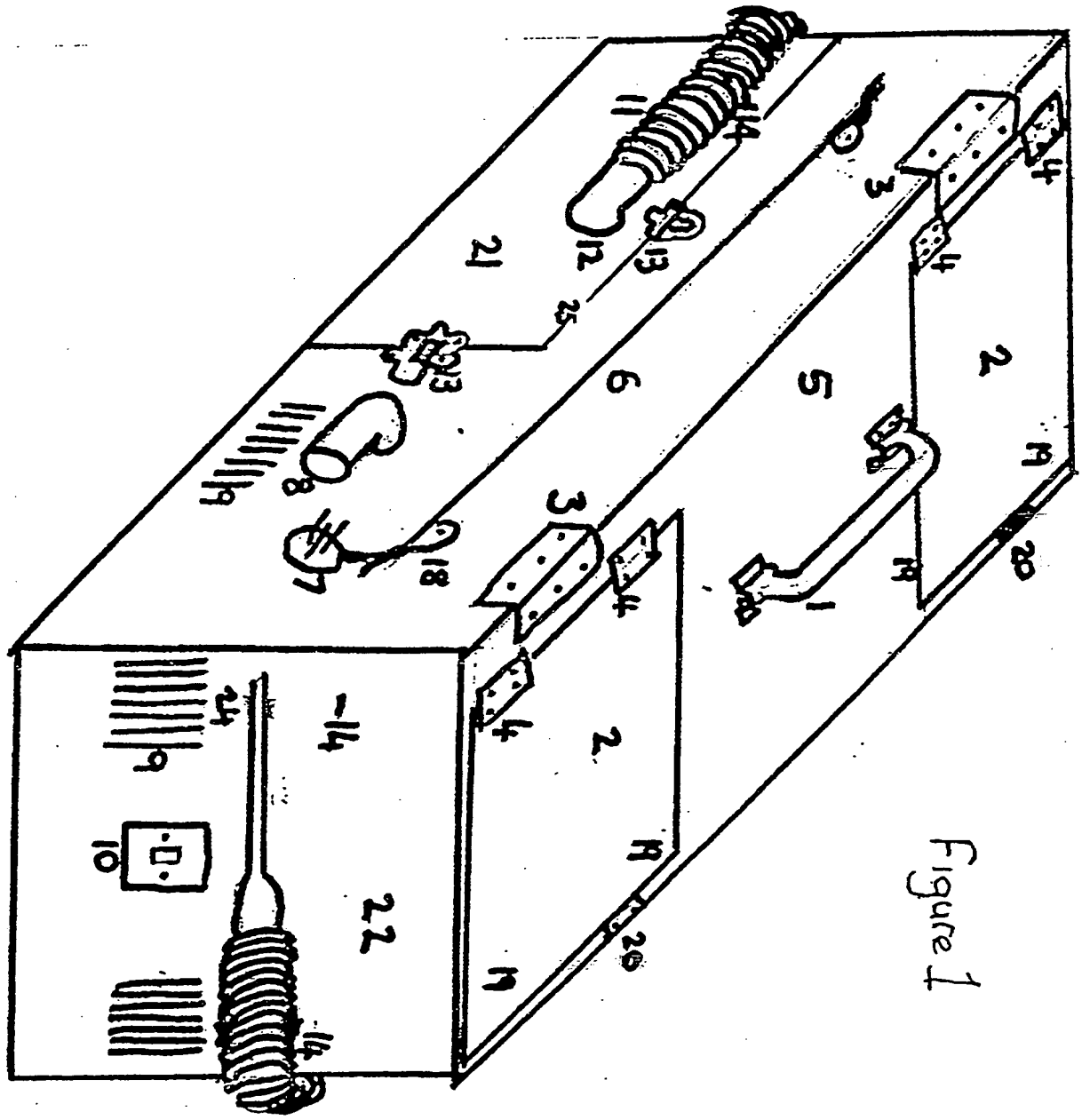


Figure 1

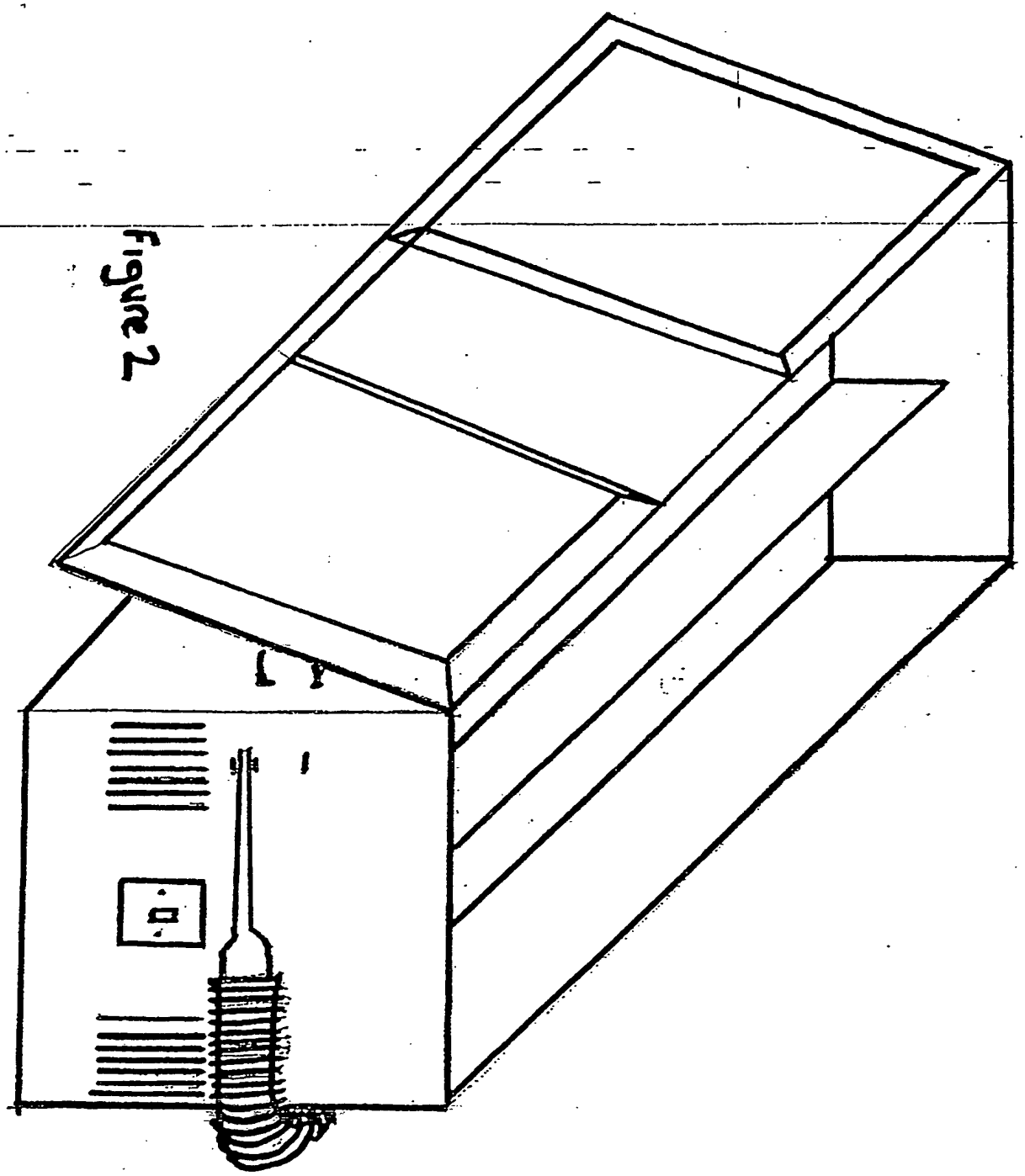


Figure 2

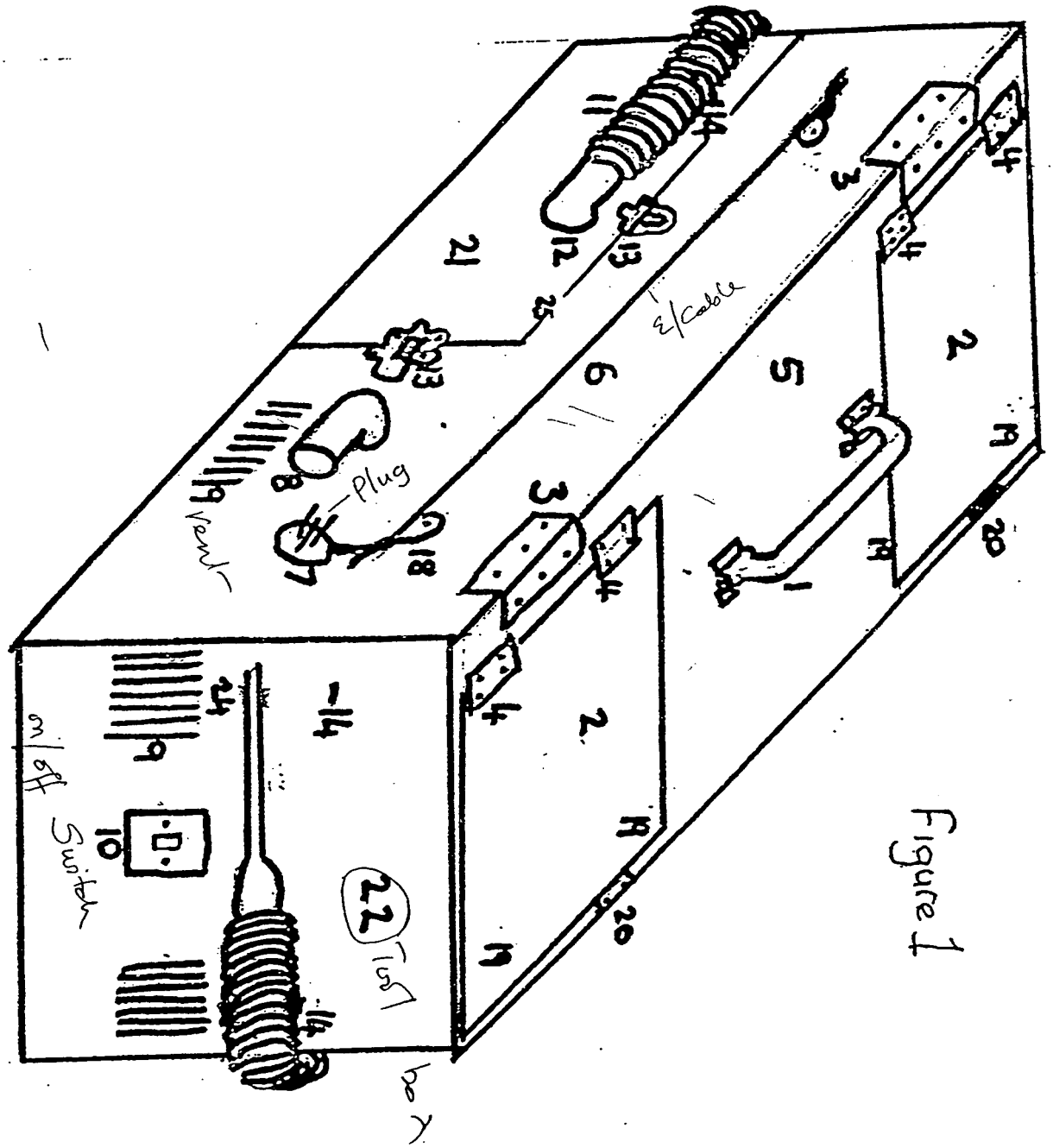


Figure 1

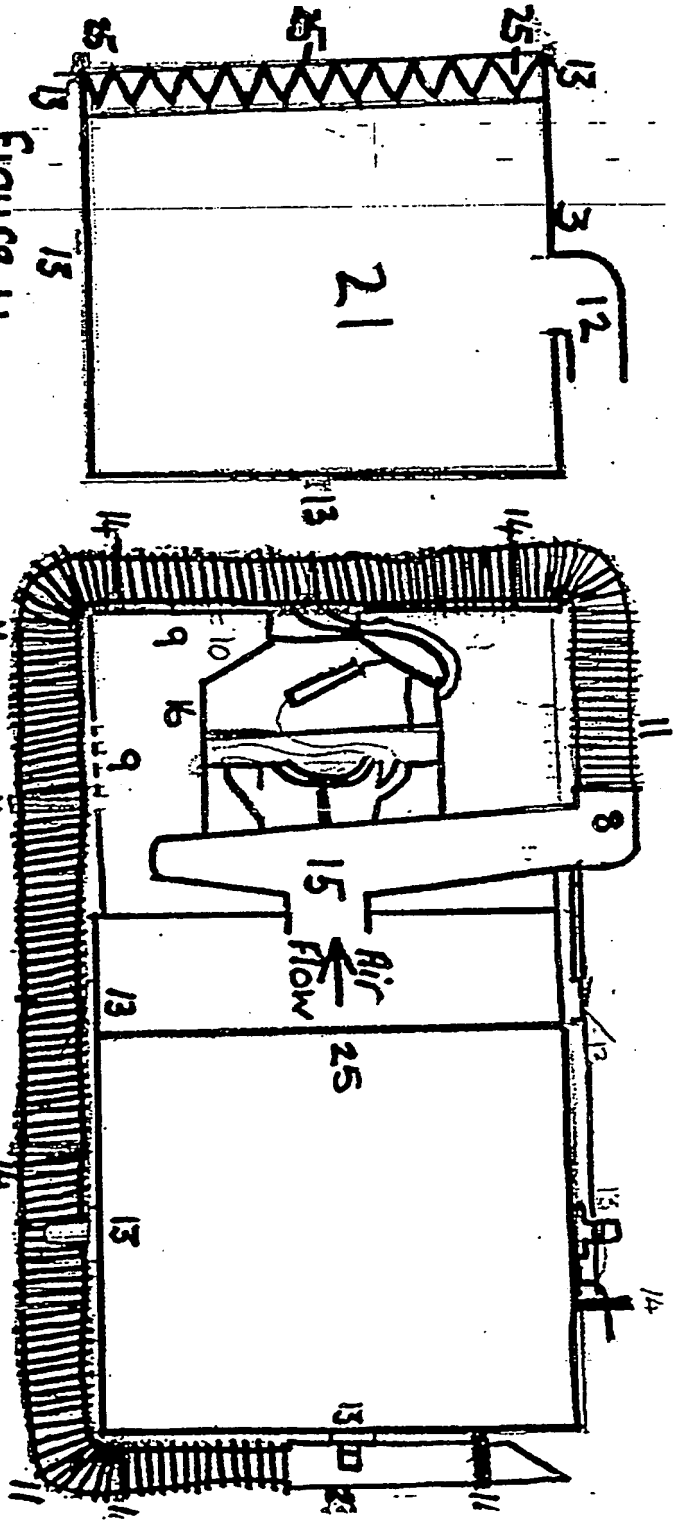


Figure 4

Figure 3

Combined Vacuum Cleaner And Tool Box

This invention relates to a tool box and vacuum cleaner combined.

Tradesmen / DIY enthusiasts need to carry a tool box and because of the nature of their work there is generally a need to use a vacuum cleaner to tidy up. Some tradesmen may use a vacuum cleaner as a essential tool whilst carrying out specific tasks e.g. a Gas Service Engineer whilst servicing a central heating boiler would use his tools to strip down the appliance and the vacuum cleaner to any dust shale that would impair the performance of the appliance. This also has a blow facility and by changing the flexible hose on the side of the box and putting it on the outlet of the box it will carry out this procedure. The vacuum runs off 240 volts mains electric.

A specific embodiment of the invention will now be described by the way of example with reference to the accompanying drawing in which:-

Figure 1 shows in perspective, the tool box in its entirety, with hose connected to the suck facility on the box, which can be detached and fitted to the blow facility on the box as shown in figure 3

Figure 2 shows in perspective, the tool box with the lid open.

Figure 3 shows a plan view of the box with the base and the detachable dust box removed to show the electric motor and the impeller.In this picture the hose is connected to the blow facility on the box

Figure 4 shows a plan view of the detachable dust box.

Combined Vacuum Cleaner And Tool Box

Here is a list of the parts as shown in figures 1 - 4 :-

Figure 1:-
1, Collapsible handle.
2, Lid for small compartment on top of tool box.
3, Hinge for the main tool box lid.
4, Hinge for the small compartment lid.
5, Lid for the main tool compartment.
6, 240 volts mains electric cable.
7, 240 volts mains electric plug.
8, Blow facility outlet.
9, Cooling vent for the motor housing
10, On / off switch.
11, Detachable flexible hose.
12, Suction facility inlet.
13, Case toddle clips.
14, Clips for holding flexible hose to box while in transit.
18, Cleats for wrapping electrical cable around.
19, Clips for securing small compartment lids.
20, Clips for securing tool compartment lid.
21, Detachable dust box.
22, Tool box..
23 Crevice tool attachment.
24, Clip for holding crevice tool while in transit.
25, Rubber seal.

Figure 2:-
15,Large tool compartment.

Figure 3:-
9, Cooling vents for the motor housing
10, On / off switch.
11, Detachable flexible hose.
13, Case toddle clips.
14, Clips for holding flexible hose to box while in trasit a.
15, Impeller housing.
16, 240 volt electric motor.

Figure 4:-
12, Suction facility inlet.
13, Case toggle clips.
17, Vacuum filter.
21, Detachable dust box,
25, Rubber seal.

Combined Vacuum Cleaner And Tool box

Referring to the drawings shown in figures 1 - 4 it is basically a large tool box which is divided into two completely separate parts. The top part as shown in figure 2 is the tool box , fitted onto the lid of this box there are two smaller compartments fitted either of the handle. These smaller compartments are for storing things like screws, wall plugs etc. The large compartment is for storing your tools.

The bottom section of the box houses the vacuum cleaner. This is divided into two parts, one of which is the detachable dust box which is shown in figure 4.This part of the tool box is held on to the main body of the box by five case toggle clips. When these are clipped up to the main body of the box they give a air tight seal round it, thus concentrating all the force from the vacuum on the suction facility inlet. All the debris which has now been vacuumed up will now be store in the detachable dust box and cannot be blown through the vacuum because of the filter also shown in figure 4.

By having a push-fit type flexible hose, which would fit both the suction facility inlet and the and the blow facility outlet you can change the facility to suit your needs.

Fitted inside the compartment which houses the electric motor at the opposite end from the impeller is a small fan, which cools the motor down by circulating cooler air from outside the box through cooling vent.

CLAIMS

1 A combined vacuum cleaner and tool box comprises of a box or compartment with a securable lid on which a handle is fitted in the center, either side of the handle, fitted into the top of the lid at opposite ends there are smaller compartments also with securable lids for smaller items, under this lid is the tool compartment of the box and under this the vacuum cleaner is situated, half of this compartment houses the vacuum pump and the other is detachable dust box or compartment, between these two is secured a filter.

2 A combined vacuum cleaner and tool box as claim in claim 1 is divided into two parts, a top section that the lid which is secured to is a tool box and a bottom section is a vacuum cleaner.

3 A combined vacuum cleaner and tool box as claimed in claim 2 has a secured lid and fitted into the lid either side of the handle are two compartments also fitted with secured lids.

4 A combined vacuum cleaner and tool box as claimed in claim 1 also has a bottom section which is also split into two sections of approximately equal size ,one side of which is secured a detachable dust box or compartment, the other side houses the electric motor, impeller, switch and electric supply cable.

5 A combined vacuum cleaner and tool box as claimed in claim 1 and claim 4 has a dust box or compartment which a hose can be attached to, so that when it is in operation dust and debris may be drawn into it.

6 A combined vacuum cleaner and tool box as claimed in claim 1 and 4 has a motor and impeller housing fitted with cooling vents, where the air is drawn through the impeller and out a hose may be attached to provide a blowing action.

7 A combined vacuum cleaner and tool box as claimed in claim 1 has a filter that securely fitted between the dust box and the motor and the impeller housing.

8 A combined vacuum cleaner and tool box as claimed in claim 4 has a electric supply cable fitted with a plug on the end which secured round the box or compartment.

9 A combined vacuum cleaner and tool box as claimed in claim 4 and claim 5 has a flexible hose which can be fitted to the blow facility outlet, or the suction facility outlet the hose is secured round the box or compartment.

10 A combined vacuum cleaner and tool box substantially as described herein with reference to figures 1-4of the accompanying drawing.